

## PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference BP108109/MAK	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/FI 2003/000972	International filing date (day/month/year) 19-12-2003	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC See Supplemental Box		
Applicant Nokia Corporation et al		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 6 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☐ (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:
    - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application   |

Date of submission of the demand  01-07-2005	Date of completion of this report  22-02-2006
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**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.

PCT/FI 2003/000972

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.  
Continuation of: **Cover sheet**

**INTERNATIONAL PATENT CLASSIFICATION (IPC) :**

**H04M 1/02 (2006.01)**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FI 2003/000972

## Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FI 2003/000972

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1 - 8</u>	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	<u>1 - 8</u>	NO
Industrial applicability (IA)	Claims	<u>1 - 8</u>	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

The invention relates to a mobile phone assembly and is intended to cut down the number of separate parts, reduce time and stages in the assembly and reduce the costs of the complete mobile phone.

Reference is made to the following documents:

D1: US 4703160 A

D2: US 5541813 A

D3: US 5432676 A

Document D1 (column 3, line 55 - column 8, line 11, figures 1 - 5, abstract) discloses a base part (18, 16, 14, 12) for a portable electronic appliance (10). The base part (18, 16, 14, 12) consists of a (hard) body part (16, 14, 12) including a keypad (28), a window (18) and a soft middle part (24), which connects the body parts (18, 16, 14, 12). The window (18) is foldable against the (hard) body part (16) along a hinge line (24) created in the soft middle part (24). The base part (18, 16, 14, 12) is constructed of a resilient material so that the thinned narrow strip portion (24, 26) formed between every adjacent two parts (18, 16, 14, 12) provides an integral hinge joint (24, 26). Thus, the parts (18, 16, 14, 12) that are not thinned are hard compared to the hinge joints (24, 26). The base part (18, 16, 14, 12) is injection molded from an elastomer resin. The integral hinge reduces the number of components and simplifies the assembly of the appliance (column 10, lines 10 - 21).

.../...

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

Document D2 (column 4, line 61 - column 8, line 5, figures 1 - 10, abstract) discloses a base part (6) for a mobile phone (1). The base part (6) consists of two hard body parts (6) and a soft middle part (7), which connects the hard body parts (6). One of the hard body parts (6) is foldable against the other hard body part (6) along a hinge line (7) created in the soft middle part (7). The base part (6) is manufactured by injection molding with a first injection mold (33, 36, 25, 20) producing two hard body parts (6) of hard plastic (6a), and injection molding with a soft polyurethane resin producing a soft middle part (7a) which has a hinge line (7a) to fold up one of the hard body parts (6) against the other hard body part (6).

Document D3 (column 4, line 61 - column 8, line 28, figures 1 - 10, abstract) discloses a similar technique.

The invention claimed in claims 1 - 5 differs from what is known from document D1, the closest prior art, essentially in that the portable electronic appliance is a mobile phone.

The technical problem is how to find a new use for the base part of document D1.

Considering that a mobile phone is a well known example of a portable electronic appliance, wherein a reduction of the number of component members and elements in assembling the appliance is desirable, and that no unexpected technical effect is obtained, it would be obvious to suggest the use of the base part of document D1 for a mobile phone. Therefore, the invention claimed in claims 1 - 5 is novel but lacks an inventive step. Claims 1 - 5 fulfil the requirement of industrial applicability.

The invention claimed in claims 6 - 7 differs from what is known from document D1, the closest prior art, essentially in that the portable electronic appliance is a mobile phone and that the injection molding is performed with hard plastic for the window and the hard body part, and with a soft elastomer for the soft middle part.

The technical problem is how to find a new use for the base part of document D1 and how to find an alternative method of manufacture.

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## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

A person skilled in the art finds this method of manufacture from document D2, which relates to a mobile phone. Considering this and that no unexpected technical effect is obtained, it would be obvious to suggest manufacturing the base part of document D1 using the technique of document D2 and using the base part for a mobile phone.

Therefore, the invention claimed in claims 6 - 7 is novel but lacks an inventive step. Claims 6 - 7 fulfil the requirement of industrial applicability.

The invention claimed in claim 8 is obvious to a person skilled in the art. Therefore, the invention claimed in claim 8 is novel but lacks an inventive step. Claim 8 fulfils the requirement of industrial applicability.

To sum up, the invention claimed in claims 1 - 8 is novel but lacks an inventive step. All the claims fulfil the requirement of industrial applicability.